

## REMARKS

### Summary of Office Action

Claims 1-35 are pending. Claims 1-35 have been rejected under 35 U.S.C. § 103(a) being obvious from Portwood et al. U.S. Patent No. 6,305,377 (“Portwood”) in view of Edelson et al. U.S. patent No. 5,737,539 (“Edelson”).

### Applicants Reply

Applicants respectfully traverse the prior art rejections.

Applicants resubmit the Remarks presented in the Previous Reply, which is incorporated by reference herein. For brevity the previous Remarks are not reproduced herein, but applicants request the Examiner to kindly reconsider the previous Remarks fully.

Applicants have previously submitted that “Portwood and Edelson do not show, describe or suggest the processing of “de-identified” patient records. Portwood and Edelson both relate to data processing environments in which patient records are or were not de-identified. For example, Edelson FIGS. 1 and 2 explicitly show patient name, social security number information. Close reading of Edelson shows no awareness or suggestion by either Edelson or Portwood of “de-identified” patient records.” Edelson’s prescription management system explicitly relies on records having “patient identifiers” (Se e.g., col. 4 lines 30-35). Similarly, Portwood patient prescription compliance system explicitly relies on “patient data [that] include[s] the patient’s name, social security number, and address’ (See col. 8, lines 54 -65, col. 9 lines 6-19, etc.).”

The Office Action states that the Examiner relies “upon the clear and unmistakable teaching of Portwood Col. 1 lines 34-67 to col. 2 lines 14) which correspond to Applicant’s claimed feature”. (See Office Action page3 section (B)). Applicants respectfully

submit that careful reading of all of Portwood including shows no support for Examiner's position. Unless the citation in the Office Action is in error, applicants believe that the Examiner's cited text at col. 1 lines 34- col. 2 line 14 is as follows:

In attempts to overcome one or more of these causes, various equipment and systems have been devised. Examples of such systems can be seen in U.S. Pat. No. 4,695,954 which combines a special drug dispenser to be used by a patient in conjunction with a system which monitors the usage of the drugs by the patient. Another system is disclosed in U.S. Pat. No. 4,766,542 wherein patients are automatically contacted by automatic telephone dialing and voice synthesizing equipment to remind them that their prescriptions need to be refilled. U.S. Pat. No. 5,390,238 discloses a system linking the physician, pharmacists, patient, and care provider for the purpose of monitoring medication usage and patient wellness. However, the various prior art systems have proven to be workable only in controlled environments. Even then they leave unsolved many of the numerous other causes of noncompliance.

A second problem relating to medical regimens is lack of easy checking procedures to determine if a prescription complies with a recommended regimen. Currently, the U.S. FDA publishes a Generic Product Identifier (GPI) which is a listing of available drugs coded by their generic chemical composition and a National Drug Code (NDC) which is a listing of available drugs coded by their trade names. However, neither the GPI nor the NDC contain drug reaction information. There does exist a collection of studies which describe known reactions for certain drugs. This collection of studies is referred to herein as the Knowledge Base Drug Code (KDC). In addition, there are other studies which have established classes based on composition of the components which make up a drug. However, a compilation of this available information has not been assembled for easy use.

Applicants respectfully submit that the Examiner makes an error in concluding that the cited portion of Portwood is related "de-identified patent record processing," or to any of applicants' claimed features related to "de-identified patent record processing.

Here, applicants further note that Portwood relates to a "System and method for improving compliance of a medical regimen" by a patient. The patient is a known patient and not an unknown i.e., "deidentified" patient (See col. 8, lines 54 -65, col. 9 lines 6-19, etc.).

Applicants have previously submitted that Portwood and Edelson, viewed individually or in combination, do not show the elements of claims 1, 10, and 25 that specifically relate to the processing of “de-identified” patient records. Yet, the Office Action states that “applicant does not point to any specific distinctions between the features disclosed in the references and the features that are presently claimed,” and further requires the applicant to specifically point out how the language of the claims patentable distinguishes them from the applied references.”

Applicants believe that the Examiner is mistaken as the Previous Reply explicitly states that the elements of claims 1, 10, and 25 that specifically relate to the processing of “de-identified” patient records are not shown, taught or suggested by the cited references.

However, in view of Examiner’s requirement, applicant here submit that Portwood and Edelson, viewed individually or in combination, do not show at least the following steps of claim1:

- (a) *receiving a plurality of historical de-identified patient prescription records corresponding to prescriptions issued to at least one de-identified patient by at least one physician, each record including de-identified patient identification number, dosage, and prescription product information;*
- (b) *receiving user-specified information defining a subset of the historical de-identified patient prescription records;*
- (c) *extracting at least one relevant historical de-identified patient prescription record from the received historical de-identified patient prescription records based on the subset;*
- (d) *for each de-identified patient, comparing dosage and prescription product information contained in a first extracted historical de-identified patient record with dosage and*

prescription product information contained in *a second extracted historical de-identified patient record*; and

(e) *for each comparison made in step (d), categorizing a prescription based on a change in dosage or prescription product.*

Applicant further submit that Portwood and Edelson, viewed individually or in combination, do not show at least the following steps of claim 5:

(a) *receiving a plurality of historical de-identified patient prescription records* corresponding to prescriptions issued to *at least one de-identified patient* by at least one physician, *each record including de-identified patient identification number*, prescription product information, date dispensed, dosage, number of days supplied, and refill information;

(b) *receiving user-specified information defining a subset of the historical de-identified patient prescription records*;

(c) *extracting at least one relevant historical de-identified patient prescription record* from the received historical de-identified patient prescription records based on the subset;

(d) *for each de-identified patient, comparing dosage and prescription product information contained in a first extracted historical de-identified patient record with dosage and prescription product information contained in a second extracted historical de-identified patient record*;

(e) *for each comparison made in step (d), categorizing a prescription based on a change in dosage or prescription product*;

(f) *extracting at least one relevant historical de-identified patient prescription record* from the prescriptions categorized at step (e) based on the refill information;

(g) *for each de-identified patient, determining a refill due date based on the dosage and the number of days supplied for a first prescription;*

(h) *for each de-identified patient, comparing the refill due date of the first prescription with the date dispensed for a second prescription; and*

(i) *for each comparison made in step (h), categorizing the de-identified patient based on the duration between the refill due date of the first prescription and the date dispensed for the second prescription.*

Applicant further submit that Portwood and Edelson, viewed individually or in combination, do not show at least the following elements of claim 25:

(a) *a mass storage device for storing a plurality of historical de-identified patient prescription records corresponding to prescriptions issued to at least one de-identified patient by at least one physician, each record including a de-identified patient identification number, dosage, number of days supplied and prescription product information, dosage, fill date, and number of days supplied;*

(b) *an input device, coupled to the mass storage device, for receiving user-specified information which defines a subset of the plurality of historical de-identified patient prescription records;*

(c) *a prescription categorizer, coupled to the input device, configured to compare the dosage and the prescription product information contained in a first historical de-identified patient prescription record with the dosage and prescription product information contained in a second historical de-identified patient prescription record, and to categorize a prescription based on a change in dosage or prescription product; and*

(d) *a persistence calculator*, coupled to the prescription categorizer, configured to determine the due date of a first prescription based on the dosage and the number of days supplied, to compare the due date of the first prescription with the fill date of a second prescription, and *to categorize the de-identified patient* based on the duration between the due date of the first prescription and the fill date of the second prescription.

Neither Portwood nor Edelson show the elements of applicants' claims 1, 10 and 25. Thus, even if Portwood and Edelson are combined they do not and cannot show the elements of claims 1, 10, and 25 as alleged by the Examiner.

Applicants do not understand the context of the Examiner's concern stated on page 4 (bottom paragraph) of the present Office Action. Applicants believe that they have properly addressed the obviousness rejection as expressly outlined in the Office Action dated March 2, 2006 by demonstrating that even if Edelson is included in Portwood as alleged by the Examiner, the cited references do not show the elements of applicants' claims. (See e.g., Office Action dated March 2, 2006, paragraph straddling pages 3 and 4, paragraph at the middle of page 8, and last complete paragraph page 12, in which the Examiner alleges that it would be obvious to include the features of Edelson with the system of Portwood to arrive at claims 1, 10 and 25, respectively). Applicants have previously submitted that Portwood and Edelson do not show, describe or suggest the processing of "de-identified" patient record, which is a recent privacy concern. Applicants again note that processing "de-identified" or anonymous records is not in the common art.

For at least the foregoing reasons claims 1, 10 and 25 are patentable over the cited references.

Further, claims 2-9, 11-24 and 26-35 that depended on claims 1, 10 and 25, respectively, are patentable over the cited references for at least the same reasons that their parent claims are patentable as discussed above.

Conclusion

This application is now in condition for allowance. Reconsideration and prompt allowance of which are respectfully requested. If there are any remaining issues to be resolved, applicants respectfully requests that the Examiner kindly contact the undersigned attorney by telephone for quick resolution.

By: 

Manu J Tejwani  
Patent Office Reg. No. 37,952

Baker Botts L.L.P.  
30 Rockefeller Plaza  
New York NY 10112

*Attorneys for Applicant*  
212-408-2614